

**What the invention claimed is:**

1. A method of letting a single LAN port VoIP (voice over IP) device have network address translation function by means of the application of NAT (network address translation) technique of translating the private IP address of an organization  
5 into a global IP address for use in the Internet to a VoIP device having a single LAN port to let multiple handsets of said VoIP device use a global IP address in the Internet to connect the Internet through a network apparatus and to perform Internet telephone communication through said VoIP address.

2. The method of letting a single LAN port VoIP (voice over IP) device have network address translation function as claimed in claim 1 wherein said VoIP device comprises a virtual IP interface that uses NAT technique to set a global IP address, and a physical IP interface adapted to set a private IP address for use inside the organization in which said VoIP device is installed.

3. The method of letting a single LAN port VoIP (voice over IP) device have network address translation function as claimed in claim 1 wherein said VoIP device comprises a NAT conversion table adapted to store translation data of private IP address to global IP address.

4. The method of letting a single LAN port VoIP (voice over IP) device have network address translation function as claimed in claim 3 wherein upon receipt of an  
20 outward packet from the inside of the organization in which said VoIP device is installed, the physical IP interface of said VoIP device uses the NAT function to convert the source IP address and port number of the outward packet into the global IP address and another port number set in said virtual IP interface, and then stores the conversion

in said NAT conversion table, said another port number being given by NAT, and then said physical IP interface sends the converted global IP address and port number to the single LAN port of said VoIP device, enabling said VoIP device to connect the Internet through the single LAN port thereof subject to the global IP address.

5            5. The method of letting a single LAN port VoIP (voice over IP) device have network address translation function as claimed in claim 3 wherein upon receipt of an inward packet from the outside of the organization by said physical IP interface, said virtual IP interface checks the internal NAT conversion table if there is data related to the inward packet, and then said virtual IP interface changes the destination IP address and destination port number of the inward packet back into the private IP address and port number for use internal use in the enterprise or organization, if the related data exists in the NAT conversion table, and then sends the data through said physical IP interface to the single LAN port of said VoIP device, enabling the packet message to be transmitted from the Internet through the single LAN port to the handsets of said VoIP  
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15 device.